

Remarks:

Responsive to the Official Action mailed March 2, 2006, Applicant respectfully requests reconsideration, reexamination and allowance of claims 1, 3-13 and 15 in view of the above-noted amendments and the following remarks.

The Examiner first states that the oath or declaration is defective because it does not identify the mailing address and residence of each inventor. The Examiner goes on to state that this information can be provided on an Application Data Sheet.

Applicants submit that a proper Data Sheet was filed with the Application. A copy of that Data sheet is attached for the Examiner's review and entry in the Application file. It is respectfully requested that the undersigned be contacted in the event that there is any issue with respect to the information on the Data Sheet.

Next, the Examiner has rejected claims 1, 2, 5-9 and 11-15 under 35 U.S.C. 103(a) as unpatentable over Bachmann, U.S. Patent No. 5,419,247 in view of Ota, U.S. Patent No. 5,749,293. The Examiner characterizes Bachmann as disclosing an ink supply system for use with a printer of the type in which ink is deposited in a receiving region on a plate and ink is scraped from the plate leaving ink in the receiving region, that includes an ink cup having a hollow interior, that defines an ink reservoir and an outer edge having a scraping element, The Examiner states further that Bachmann shows the ink cup having an inlet and an outlet and a pump having a suction side and a discharge side in which the suction side is in flow communication with the cup outlet for drawing ink from the cup.

The Examiner further characterizes Bachmann as disclosing a "well known arrangement to monitor the viscosity and temperature", a reservoir, and a flow conduit between the reservoir and the ink cup to provide ink to the cup, in which the pump draws ink from the cup creating a negative pressure in the cup and in which the negative pressure in the cup draws ink from the reservoir to the cup through the flow conduit. The Examiner states further that Bachmann discloses a second flow conduit extending from the reservoir to the ink cup outlet to provide ink from the cup to the viscosity controller, and means for creating less than atmospheric pressure in the cup that is positioned in the second conduit.

The Examiner concedes that Bachmann does not disclose a viscosity controller in flow communication with the pump, but then cites to the Ota patent for its teaching of a reservoir, a pump, a

filter and a viscosity/temperature controller and an ink supply, and concludes that it would have been obvious to one of skill in the art to modify the Bachmann device to include a viscosity controller downstream of the pump and upstream of the ink supply to increase the functionality of the Bachmann device by allowing automatic adjustments of the ink viscosity based upon output from the “well-known” viscosity sensor of Bachmann.

As to claims 2 and 14, the Examiner states that Bachmann teaches that an overpressure condition in the ink cup is undesirable and that it would have been obvious to one of skill in the art to modify Bachmann to include the ink reservoir and pump below the ink cup to reduce the chance of overpressurizing the ink cup.

The Examiner states that with respect to claims 5-8, 11-13 and 15 the Bachmann and/or Ota patents teach a passive first flow conduit, a scraping element that is a doctor blade, a viscosity measuring device and means for creating less than atmospheric pressure between the ink cup and the viscosity controller.

The Examiner next rejected claims 3, 4 and 10 under 35 U.S.C. 103(a) as unpatentable over Bachmann in view of Ota and further in view of Gaenzle, U.S. Patent No. 4,792,292. The Examiner characterizes Gaenzle as disclosing an ink pump system that includes a viscosity controller with an ink thinner supply in flow communication with the viscosity controller such that when the controller senses a higher than desired viscosity of ink, a quantity of thinner is provided to the controller to mix with the ink to thin the ink. The Examiner concludes that it would have been obvious to one of skill in the art to modify Bachmann to include an ink thinner supply.

Applicant respectfully traverses the Examiner’s rejection. The present invention, as claimed (as amended), is directed to an ink supply system for use with a printer in which ink is deposited in a receiving region on a plate and is scraped from the plate leaving ink in the receiving region.

The supply system includes an ink cup that has a hollow interior defining an ink reservoir and an outer, scraping element edge for engaging the plate. The ink cup has an inlet and an outlet. A pump (at the suction side) is in flow communication with the ink cup outlet for drawing ink from the cup.

A viscosity controller is in flow communication with the pump discharge and receives ink from the pump. A flow conduit between the viscosity controller and the ink cup provides a flow of ink from the viscosity controller to the ink cup.

The viscosity controller is at an elevation that is no higher than the elevation of the ink cup. In this arrangement, the pump draws ink from the cup creating a negative pressure within the cup and the negative pressure within the cup draws ink from the viscosity controller to the ink cup through the flow conduit.

Applicant submits that this structure is not disclosed in any combination of the Bachmann and Ota patents. Specifically, and contrary to the Examiner's assertion, neither of these patents disclose an arrangement in which a pump draws ink from the cup and creates a negative pressure in the cup.


The Examiner cites to the Bachmann patent for the position that it is desirable to prevent overpressurization in the cup, and thus it would have been obvious to modify Bachmann to include the reservoir and pump at an elevation below the ink cup to prevent overpressurization. Applicant submits that the Examiner's reasoning is far over-reaching for what is actually disclosed in the Bachmann patent. Specifically, the Bachmann patent teaches only that overpressurizing in the ink cup is undesirable. In fact, Bachmann shows an opening (9) in the cup that appears to be open to the environment or atmosphere, to prevent overpressurizing the cup (col. 2, lines 56-58). There is no suggestion to create a negative pressure in the cup to draw ink from the controller. Rather, the only suggestion is to prevent overpressurizing. Applicant submits that there is a considerable distinction between venting (as by the opening (9) of Bachmann) and the presently claimed negative pressure arrangement.

Moreover, it is Applicant's position also that there is nothing in Bachmann that would suggest the relative elevations of the ink cup and the reservoir. In fact, although applicant recognizes that a schematic illustration does not imply a physical arrangement, Fig. 3A shows the reservoir located above the cup and further shows that the cup is full while the reservoir is only partly full. Again, although Applicant appreciates that a schematic illustration does not dictate a physical or structural arrangement, it does, in applicant's view fail to suggest a need for the reservoir to be at an elevation that is no higher than that of the ink cup.

Accordingly, Applicant submits that the art of record fails to disclose the claimed invention, and that the art as a whole fails to suggest or motivate one skilled in the art to make the changes necessary to render the claimed invention obvious. To this end, Applicant respectfully requests that the Examiner withdraw these bases for rejection of the present claims and allow this application to progress to issue.

Should there be any questions or concerns in connection with the present submittal, it is respectfully requested that the undersigned be contacted.

Respectfully submitted,

By 

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